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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,518	01/16/2004	Michael Reuschel	GS 0648 A US	7046
20676	7590	06/27/2005	EXAMINER	
ALFRED J MANGELS 4729 CORNELL ROAD CINCINNATI, OH 452412433			TRAN, DALENA	
			ART UNIT	PAPER NUMBER

3661

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/759,518

**Applicant(s)**

REUSCHEL, MICHAEL

**Examiner**

Dalena Tran

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

**Notice to Applicant(s)**

1. This application has been examined. Claims 1-13 are pending.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8-11, and 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wahl et al. (5,845,755) in view of Hanggi et al. (6,721,643).

As per claim 1, Wahl et al. disclose a method for adjusting a contact force between two frictionally-engaged torque-transmitting components of a motor vehicle drive system, method comprising the steps of: determining a preliminary adjusting value from a value of at least one operating parameter of the drive system (see columns 2-3, lines 41-50), and determining the contact force from a control variable that is a function of the preliminary adjusting value (see columns 4-5, lines 44-59). Wahl et al. do not disclose determining a regulator output value by comparing an actual value of an operating parameter with a target value of the operating parameter. However, Hanggi et al. disclose determining a regulator output value by comparing an actual value of an operating parameter with a target value of the operating parameter (see columns 1-2, lines 44-43), and determining the contact force from a the regulator output value (see columns 2-3, lines 59-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Wahl et al. by combining

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determining a regulator output value by comparing an actual value of an operating parameter with a target value of the operating parameter for accurately adjusting the contact force of the torque transmitting component.

Also, as per claim 2, Hanggi et al. disclose the regulator output value is only operative during quasi-static operating conditions of the drive system (see columns 1-2, lines 44-43).

As per claim 3, Wahl et al. disclose wherein the preliminary adjusting value and the regulator output value are in direct relationship with the contact force (see column 4, lines 1-43).

As per claims 4, and 8, Wahl et al. do not disclose adding together the preliminary adjusting value and the regulator output value. However, Hanggi et al. disclose the step of providing an adjusting value by adding together the preliminary adjusting value and the regulator output value (see columns 5-6, lines 49-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Wahl et al. by combining adding together the preliminary adjusting value and the regulator output value for adjusting the contact force of the torque transmitting component.

As per claim 5, Wahl et al. disclose the preliminary adjusting value is a function of a torque to be transferred (see columns 2-3, lines 41-50).

As per claim 6, Wahl et al. disclose wherein one of the torque-transmitting components is an endless torque-transmitting means and another component is a pair of conical disks of a continuously variable transmission, and wherein the preliminary

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adjusting value is a function of the rotational speed of the pair of conical disks and the transmission ratio of the continuously variable transmission (see columns 1-2, lines 46-18).

As per claim 9, Wahl et al. do not disclose wherein a relationship between a modification of an input value and a dependent modification of the operating parameter used for the regulator output value is used to determine the preliminary adjusting value. However, Hanggi et al. disclose a relationship between a modification of an input value and a dependent modification of the operating parameter used for the regulator output value is used to determine the preliminary adjusting value (see columns 4-5, lines 63-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Wahl et al. by combining a relationship between a modification of an input value and a dependent modification of the operating parameter used for the regulator output value is used to determine the preliminary adjusting value for accurately adjust the contact force.

Also, as per claims 10-11, Hanggi et al. disclose wherein one of the torque-transmitting components is an endless torque-transmitting means and another component is a conical disk pair of a continuously variable transmission, and a regulation difference is a function slippage between the components (see columns 3-4, lines 40-62).

Claim 12, is an apparatus claim corresponding to method claim 1 above. Therefore, it is rejected for the same rationales set forth as above.

4. Claim 12, is rejected under 35 U.S.C. 103(a) as being unpatentable over Wahl et al. (5,845,755), and Hanggi et al. (6,721,643) as applied to claim 1 above, and further in view of Danz et al. (6,597,977).

As per claim 12, Wahl et al., and Hanggi et al. do not disclose at least one additional component, calculated from a model of the drive train, is switched in to the control variable. However, Danz et al. disclose at least one additional component, calculated from a model of the drive train, is switched in to the control variable (see columns 3-4, lines 20-16). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Wahl et al. by combining at least one additional component, calculated from a model of the drive train, is switched in to the control variable to adjust the contact force and ensure the efficiency of the automatic transmission.

5. Claim 7, is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Shigematsu et al. (4,619,629)

. Friedmann et al. (5,879,253)

. Lindner et al. (6,695,115)

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968.

The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner  
Dalena Tran



June 22, 2005